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EXAMINER	
CHEN, TSE W	

ART UNIT	PAPER NUMBER
2116	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/780,039	ANDERSON ET AL.	
	Examiner	Art Unit	
	Tse Chen	2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 November 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "computing device is in an ACPI S0 state when the computing device is in said simulated off condition" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

> pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 8, 16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not disclose how the computing device can be in an ACPI S0 state defined as *fully* on [specification, pg.2, paragraph 0003] when the power consumption of the system components is reduced to a low power state. As such, Examiner submits that it would require undue experimentation for one of ordinary skill in the art to make and use the invention [i.e., how can the computing device be fully on when some of the system components have been reduced to a low power state]. In the interest of compact prosecution, Examiner will take the position that ACPI S0 does not have to be fully on in order to apply prior art.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8, 16-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant did not disclose the particular version associated with the ACPI specification. Examiner submits that different ACPI versions have different characteristics that would affect the scope of the claims. In the interest of compact prosecution, Examiner will take the position of ACPI version 2.0 to apply prior art.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 4, 9, 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsui, US Patent 5831849.

8. In re claim 1, Matsui discloses a method of providing a simulated off condition [standby] in a computing device [pc with slave apparatus] [col.1, ll.6-13; col.2, ll.18-20], said method comprising:

- Receiving a signal to power off the computing device [col.2, ll.18-20].
- Notifying system components [e.g., 13, 15] of a low power request [standby] [col.2, ll.18-19; col.5, ll.20-37; power off instruction results in standby].
- Reducing power consumption of said system components to a low power state such that said computing device appears to be off [user issues power off instruction], wherein said system components [e.g., 1, 2, 3] remain enabled to run applications [for reception of control data] when the computing device is in the simulated off condition [col.5, ll.20-37].

9. As to claims 4 and 12, Matsui discloses, said notifying system components of a low power request further comprising sending a request [101] to software drivers [inherently, drivers in the broadest interpretation are needed to control the slave apparatus] that control power management features of said system components to place said system components into the low power state [col.5, ll.7-19].

10. In re claim 9, Matsui discloses a computing device [pc with slave apparatus] having a simulated off state [standby] [col.1, ll.6-13; col.2, ll.18-20], comprising:

- A central processing unit [2].
- A graphics processing unit [display] [col.1, l.26].
- A hard disk drive [data storage unit] [col.3, l.42].
- Random access memory [e.g., 13, 15].
- A power supply [4, 7].
- Wherein when said computing device is powered down [power off instruction], the computing device is placed into the simulated off state by placing the system components into a low power state [standby] such that the computing device appears to be off [col.2, ll.18-20; col.5, ll.20-37; power off instruction results in standby].
- Wherein the computing device remains enabled to run applications [for reception of control data] when in the simulated off state [col.5, ll.20-37].

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

12. Claims 2, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui as applied to claims 1 and 9 above, and further in view of Motamed et al., US Patent 6930795, hereinafter Motamed.

13. Matsui taught each and every limitation of the claim as discussed above. Matsui did not discuss the details of reducing power consumption involving running applications.

14. Motamed discloses a method comprising determining if running applications [jobs] require full processing [an engine capable of running job's requirements] and providing a notification that applications will be canceled if the computing device [engine] is turned off [col.6, ll.39-42].

15. It would have been obvious to one of ordinary skill in the art, having the teachings of Matsui and Motamed before him at the time the invention was made, to modify the computing device taught by Matsui to include the teachings of Motamed, in order to obtain a method comprising determining if running applications require full processing when the computing device receives said signal to power off; and providing a notification that applications will be canceled if the computing device is turned off. One of ordinary skill in the art would have been motivated to make such a combination as it provides an efficient way to manage data processing in a system architecture [akin to Matsui's] [Motamed: col.2, ll.6-8].

16. Claims 3, 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui and Motamed as applied to claims 2 and 10 above, and further in view of Deluca et al., US Patent 4860005, hereinafter Deluca.

17. Matsui and Motamed taught each and every limitation of the claim as discussed above. Matsui and Motamed did not disclose overriding the signal to power down.

18. Deluca discloses a method comprising receiving an input to override the signal to power down the computing device [receiver] [col.3, ll.5-14].

19. It would have been obvious to one of ordinary skill in the art, having the teachings of Deluca, Matsui and Motamed before him at the time the invention was made, to modify the computing device taught by Matsui and Motamed to include the teachings of Deluca, as the override is well known and suitable for use in the computing device of Matsui and Motamed. One of ordinary skill in the art would have been motivated to make such a combination as it provides way to delay a power down event when a device is being used [Deluca: col.2, ll.26-47].

20. Claims 5, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui as applied to claims 1 and 9 above.

21. Matsui taught each and every limitation of the claim as discussed above. Matsui discloses reducing power consumption of said system components comprising discontinuing a display signal to turn off a monitor [col.1, l.26; display], reducing a power supply output, locking input devices [e.g., 10, 12, 14], indicating that the computing device is in the simulated off condition [slave apparatus off indicates standby] [col.5, ll.20-37]. Matsui did not disclose explicitly other well known power consumption reduction steps. Examiner hereby takes Official Notice that it is well known in the art to reduce power consumption by instructing processors within said system to clock-down to a lowest state, turning off cooling fans, muting system audio and pausing media playback.

22. It would have been obvious to one of ordinary skill in the art, having the teachings of Matsui before him at the time the invention was made, to modify the computing device taught by Matsui to incorporate the well known steps to reduce power consumption. One of ordinary skill in the art would have been motivated to make such a combination as it provides well known ways to reduce power consumption by disabling or shutting down unnecessary components [i.e.,

power off instruction indicates user want to turn off the system which means only the necessary components needed for reception of resumption to steady operation is to be on].

23. Claims 6-7, 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui as applied to claims 1 and 9 above, and further in view of Bowker, US Patent 5922075.

24. Matsui taught each and every limitation of the claim as discussed above. Matsui did not discuss details involving applications.

25. In re claims 6 and 14, Bowker discloses a method comprising monitoring for applications [data transfer] that require said system components to utilize more power than said low power state; and bringing predetermined ones of said system components out of said lower power state to process the applications that require more power [col.5, ll.44-46].

26. In re claims 7 and 15, Bowker discloses, comprising returning the computing device to said simulated off condition [low power mode] after the applications [data transfer] that require said system components to utilize more power have completed [col.6, ll.53-55].

27. It would have been obvious to one of ordinary skill in the art, having the teachings of Bowker, Matsui and Vicard before him at the time the invention was made, to modify the computing device taught by Matsui and Vicard to include the teachings of Bowker, in order to obtain the claimed computing device. One of ordinary skill in the art would have been motivated to make such a combination as it provides a way to better manage power mode transitions [Bowker: col.1, ll.11-50].

28. Claims 8, 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui as applied to claims 1 and 9 above, and further in view of Vicard, US Publication 20040025071.

29. Matsui taught each and every limitation of the claim as discussed above. Matsui discloses wherein the computing device is in an on state [ACPI S0] when the computing device is in said simulated off condition [standby with system components on]. Matsui did not disclose explicitly using ACPI S3 state.

30. In re claims 8 and 16, Vicard discloses a method wherein the computing device enters an ACPI S3 state after a predetermined period of time [0078].

31. In re claim 17, Vicard discloses a method comprising reducing power consumption of system components via software using ACPI methods to a low power state [ACPI S3] [0078].

32. It would have been obvious to one of ordinary skill in the art, having the teachings of Matsui and Vicard before him at the time the invention was made, to modify the computing device taught by Matsui to include the ACPI teachings of Vicard, as ACPI is a very well known standard [open industry specification] in the art and suitable for use with the computing device of Matsui. One of ordinary skill in the art would have been motivated to make such a combination as it provides a cost effective way to manage power consumption [Vicard: 0012, 0074].

33. As to claim 18, Matsui and Vicard taught each and every limitation of the claim as discussed above in reference to claim 5.

34. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsui as applied to claim 18 above, and further in view of Bowker as applied to claims 6-7, respectively above.

Response to Arguments

35. Applicant's arguments filed November 10, 2006 have been fully considered but they are not persuasive.

36. Applicant argues that "how the computing device can be in an ACPI S0 state defined as fully on when the power consumption of the system components are reduced to a low power state... is fully described ... in the art at [paragraph] 61". Examiner strongly disagrees and submits the following. Paragraph 61 of the original disclosure refers to figure 5, which depicts a graph of power states vs. power consumption, wherein the power states "S0" and "Smart Off" are shown as ***separate*** states. Further reading of paragraph 61 shows the PC being returned to the "S0 state" from "Smart Off state" when more processing is required. Thus, as we are not discussing quantum mechanics or Schrodinger's cat, the disclosure clearly delineates two separate distinct states to one with ordinary skill in the art who understands that a device cannot be in two separate distinct states at the same time when the two states have conflicting definitions [i.e., low power vs. full power].

37. Applicant argues that the "claims are not indefinite merely because they could be read to cover multiple versions of ACPI". Examiner strongly disagrees and submits that different ACPI versions have different characteristics that would affect the boundaries of the claims. For instance, ACPI version 3.0 may encompass limitations associated with wireless interface under a certain protocol while ACPI version 1.0 may not; and ACPI versions of the future may encompass limitations not anticipated by current disclosure. Thus, the wide-ranging differences between the ACPI versions [past, present and future] bringing forth different limitations do not offer adequate notice to the public concerning the "metes and bounds" of the claims. Additionally, Examiner was not able to find any enabling means for predicting the future development of ACPI to ensure the operability/compatibility with the current disclosure nor the

required best mode description indicating the best version of ACPI that would work with the claimed invention.

38. Applicant argues that Matsui "fails to teach reducing power consumption of said system components to a low power state". Examiner strongly disagrees and submits that the low power state [i.e., Smart Off state] represents the "total consumption" of the system components as supported by Applicant's disclosure in paragraph 61. Thus, Applicant's admission that Matsui does disclose "entering a standby mode where... some of the components are turned off to *save power*" indicates that Matsui does disclose "reducing power consumption of said system components to a low power state".

39. Applicant argues that Matsui "fails to teach said system components remain enabled to run applications when the computing device is in the simulated off condition". Examiner strongly disagrees and submits that Matsui does disclose some of the system components remaining enabled for reception of control data when the computing device is in the simulated off condition [col.5, ll.20-37].

40. As such, Applicant's arguments are deemed not persuasive and the rejections are respectfully maintained.

Conclusion

41. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tse Chen whose telephone number is (571) 272-3672. The examiner can normally be reached on Monday - Friday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on (571) 272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tse Chen
November 20, 2006

REHANA PERVEEN
SUPERVISORY PATENT EXAMINER
11/21/06